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LITTLE SNAKE RIVER

DESIGNATED NOXIOUS WEED CONTROL

ENVIRONMENTAL ASSESSMENT

A SUPPLEMENT TO

THE NORTH PLATTE RIVER AREA

DESIGNATED NOXIOUS WEED TREATMENT PROGRAM

ENVIRONMENTAL ASSESSMENT RECORD

OCTOBER, 1979

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LITTLE SNAKE RIVER

DESIGNATED NOXIOUS WEED CONTROL ENVIRONMENTAL ASSESSMENT

I. BACKGROUND AND SUMMARY

In 1977 a systematic weed survey was conducted in the Little Snake River region west of Baggs, Carbon County, Wyoming. Populations of three designated noxious weed species, Canada thistle, skeletonleaf bursage and hoary cress, were located and defined on a USGS topographic map (Fig. 1). Two unclassified weed species (i.e., not presently designated noxious or declared weeds), halogeton and cockleburr, were also surveyed and mapped during the survey (Figs. 1-4).

The public lands in this region of Carbon County are administered by the Rawlins BLM District. The Rawlins District, the Wyoming Department of Agriculture, and the Carbon County Weed and Pest District agree that control and containment of the incipient designated noxious weed infestations is both required by law and necessary to prevent further dispersal of the weeds. The District and the Department further agree that control and containment of the unclassified weed species will become necessary at the time when the weeds are classified as designated noxious or declared weeds.

Efficacious control of established Canada thistle, skeletonleaf bursage, and hoary cress populations which infest non-cultivated lands requires the use of certain herbicides that are known to effectively control broad-leaved perennial weeds (1). Chemical weed control is an action that may significantly affect the quality of man's environment. Therefore, as required by NEPA, an environmental assessment must be prepared prior to implementation of such an action.

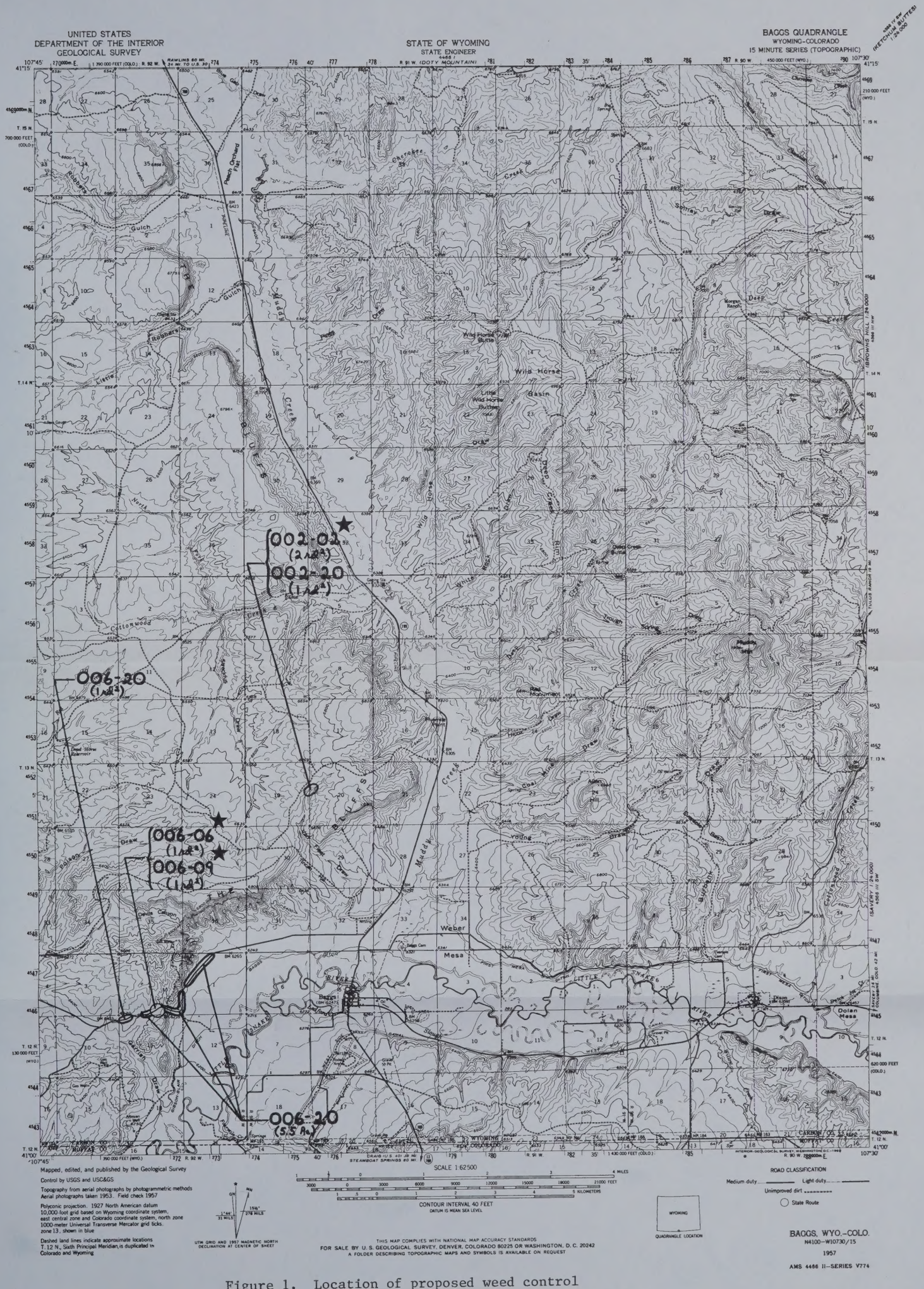

Figure 1. Location of proposed weed control sites and unclassified weed infestations.

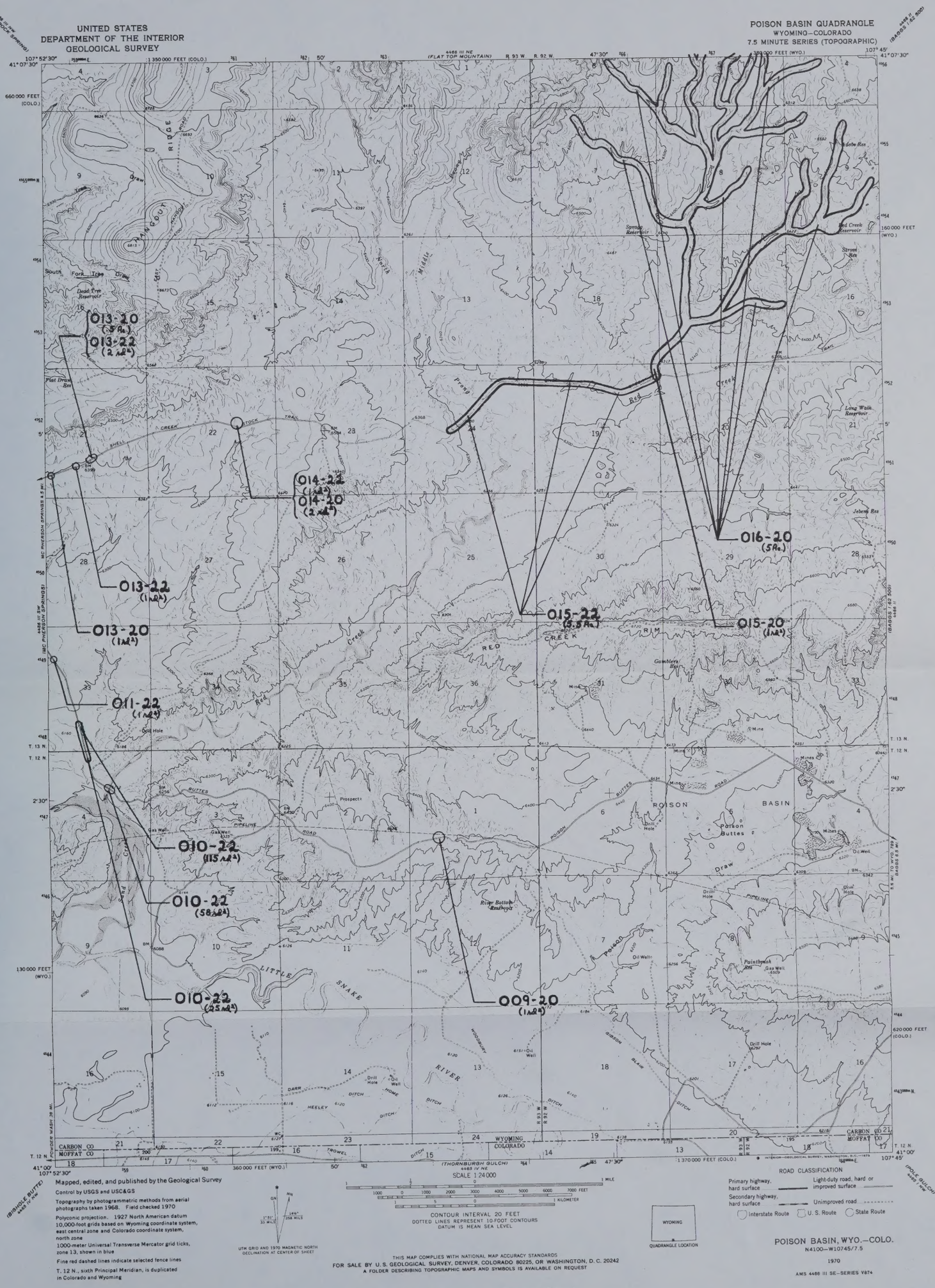
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
POISON BASIN QUADRANGLE
WYOMING—COLORADO
7.5 MINUTE SERIES (TOPOGRAPHIC)
013-20 (5 Ac.)
013-22 (2 Ac.)
014-22 (1 Ac.)
014-20 (2 Ac.)
016-20 (5 Ac.)
013-22 (1 Ac.)
015-22 (3.5 Ac.)
015-20 (1 Ac.)
013-20 (1 Ac.)
011-22 (1 Ac.)
010-22 (115 Ac.)
010-22 (58 Ac.)
010-22 (25 Ac.)
009-20 (1 Ac.)
POISON BASIN
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs taken 1968. Field checked 1970
Polyconic projection. 1927 North American datum
10,000-foot grids based on Wyoming coordinate system, east central zone and Colorado coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue
Fine red dashed lines indicate selected fence lines
T. 12 N., sixth Principal Meridian, is duplicated in Colorado and Wyoming
SCALE 1:24000
CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL
ROAD CLASSIFICATION
Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route
WYOMING
QUADRANGLE LOCATION
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
POISON BASIN, WYO.—COLO.
N4100—W10745/7.5
1970
AMS 4466 III SE—SERIES V874

Figure 2. Location of unclassified weed infestations.

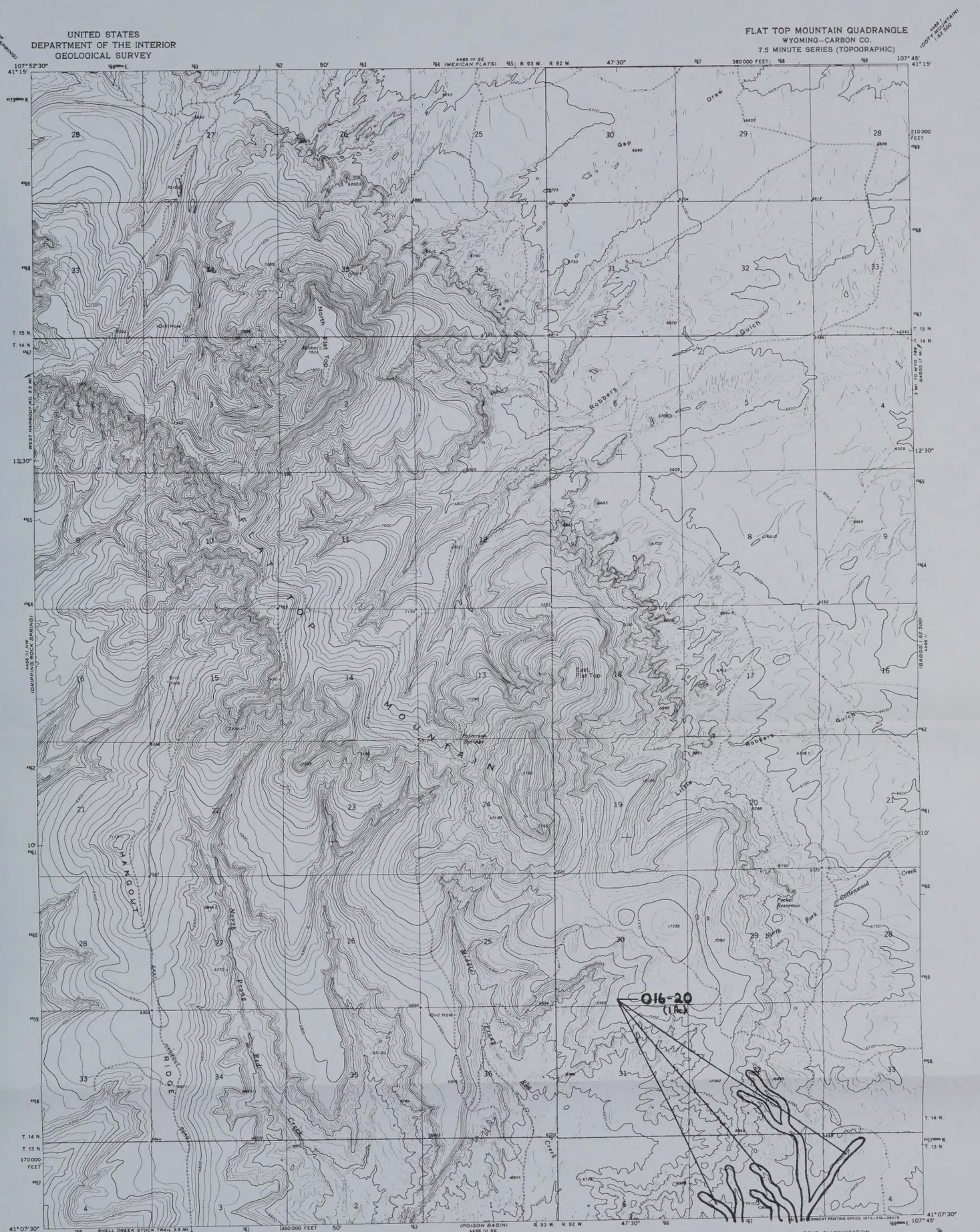
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FLAT TOP MOUNTAIN QUADRANGLE
WYOMING—CARBON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
FLAT TOP MOUNTAIN
HANGOUT RIDGE
016-20
(1A)
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs taken 1968. Field checked 1970
Polyconic projection. 1927 North American datum
10,000-foot grid based on Wyoming coordinate system, east central zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue
Fine red dashed lines indicate selected fence lines
SCALE 1:24 000
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
ROAD CLASSIFICATION
FLAT TOP MOUNTAIN, WYO.
N4107.5—W10745/7.5
1970
AMS 4466 III NE—SERIES V874

Figure 3. Location of unclassified weed infestations.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
MC PHERSON SPRINGS QUADRANGLE
WYOMING—COLORADO
7.5 MINUTE SERIES (TOPOGRAPHIC)
012-22
011-22
Cherokee Basin
Collard Draw
Clay Plat Reservoir
Lower Soap Holes
Soap Holes
Sand Creek
McPherson Springs
Dry Reservoir
CHEROKEE RIVER
SNAKE
LITTLE
Dry Gulch
SWEETWATER CO
CARBON CO
MOFFAT CO
WYOMING
COLORADO
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs taken 1968. Field checked 1970
Polyconic projection. 1927 North American datum
10,000-foot grids based on Wyoming coordinate system, east central and west central zones and on Colorado coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue
Fine red dashed lines indicate selected fence lines
T. 12 N., sixth Principal Meridian, is duplicated in Colorado and Wyoming
SCALE 1:24 000
CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL
ROAD CLASSIFICATION
Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route
QUADRANGLE LOCATION
MC PHERSON SPRINGS, WYO.—COLO.
N4100—W10752.5/7.5
1970
AMS 4466 III SW—SERIES V874
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Figure 4. Location of unclassified weed infestations.

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P.O. Box 25047
Denver, CO 80225

In 1976 the Wyoming Department of Agriculture proposed to chemically treat 416.6 acres of designated noxious weeds infesting public lands in the North Platte River Valley south of Saratoga, Wyoming. Leafy spurge and Canada thistle were the primary target species. An extensive environmental assessment document, the North Platte River Area Designated Noxious Weed Treatment Program Environmental Assessment Record (North Platte EAR) (2), was subsequently prepared and the proposed program was approved by the USDI in July 1979.

The North Platte EAR provides extensive information on (a) the various herbicide formulations and application methodologies, (b) an intensive analysis of the environmental fate and toxicology of each herbicide, (c) a complete discussion of the potential direct and indirect effects of the program on each environmental component, and (d) a detailed discussion of the recommended mitigative procedures that would be utilized to minimize potential environmental hazards.

Some of the factors considered in the North Platte EAR that could present a potentially significant environmental hazard were:

1. Herbicide contamination of surface and ground waters.
2. Potential toxicological effects on the fisheries, especially salmonid species, that occur near treatment sites.
3. Adverse and beneficial effects on the vegetation community from non-target vegetation loss.
4. Effects of vegetation changes on critical wildlife habitat; i.e., critical big game winter range, stream bank habitat important to certain fisheries, and habitat needs of other wildlife species.
5. Potential impacts on threatened and endangered plants and animals.

The North Platte EAR concludes that the most significant environmental impacts that may occur would result indirectly from the effects

the program would have on the non-target vegetation present in and near the individual treatment sites. It is expected that some wildlife species, i.e., birds, mammals, invertebrates, may suffer from the initial loss of food, cover or nesting sites. It is also anticipated that some other wildlife species may benefit from an increased food supply or increased availability of cover or nesting sites.

The Carbon County Weed and Pest District proposes to implement a treatment program to control the Canada thistle, skeletonleaf bursage, and hoary cress in the Little Snake River area west of Baggs, Carbon County, Wyoming. The control program would utilize the methodology described in the North Platte EAR. Since the proposed program area is also administered by the Rawlins District, it is considered prudent to develop the Little Snake River treatment program environmental assessment as a supplementary document to the North Platte EAR.

II. PROPOSED ACTION AND ALTERNATIVES

Proposed Action

The designated noxious weeds proposed for control in this program occur within the 71,800 acre Baggs watershed in southwest Carbon County (Fig. 1). It is proposed to control the infestations, which comprise a total of approximately .024 acres, with Tordon 22K, beads, or 2,4-D Amine. The treatment program is scheduled to begin in October, 1979, and continue through the fall of 1983. Table 1 lists the location, approximate acreage of each weed infestation, the herbicide and application method that would be employed, and the optimum treatment time. The Wyoming Department of Agriculture would be responsible for coordinating activities such as permit acquisition, and the Carbon

Table 1. Little Snake River Weed Control Program - Designated Noxious Weeds

Survey No.	Weed Species	Code	Township & Range	Section	Sub-Section	Acres of Infestation	Herbicide Applied	Method of Appl.	Time of Appl.	Phenotypic Stage of Growth
					BAGGS QUADRANGLE (Riparian Zone)					
002	Canada Thistle	02	T13NR91W	19, 20	SE¼ NE¼, SW¼ NW¼	.012	Tordon Beads	III	June-Sept.	Bud to Maturity
					BAGGS QUADRANGLE (Non-Riparian Zone)					
006	Hoary Cress	06	T12NR92W	2	SW¼ SE¼	.006	2,4-D Amine	I or II	May-June	Early Bud Stage
006	Skeletonleaf Bursage	09	T12NR92W	2	SW¼ SE¼	.006	Tordon 22K or Beads	II or III	June-Sept.	
					TOTAL ACRES	.024				

[1]I - ground units (liquid formulation) a. hand spray gun; b. spray boom.

II - hand sprayers (liquid formulation)

III - hand spreaders (granular applicator) a. PCB spreaders b. shakers.

County Weed and Pest District personnel and contractors would conduct the actual herbicide application operation.

The unclassified weed infestations listed in Table 2 are not proposed for treatment until the species are classified under the 1973 Wyoming Weed and Pest Control Act as designated noxious or declared weeds.

The Canada thistle and skeletonleaf bursage infestations would be treated with Tordon 22K or Tordon beads applied at a rate of two pounds and one pound active ingredient per acre, respectively. Hoary cress would be treated with 2,4-D Amine applied at a rate of six to eight pounds active ingredient per acre. Application methodology that would be used to apply each of the formulations mentioned above is described in detail in the North Platte EAR (2).

To avoid surface run-off that may occur in spring and early summer the herbicide would be applied after July 15 in riparian zones. Additionally, spray or beads would not be applied during periods of precipitation or when windy conditions are prevalent. These application procedures will be strictly followed at all times.

Additional and more specific information describing the Tordon 22K, bead, and 2,4-D Amine herbicide formulations and the appropriate application methodology is presented in Chapter II of the North Platte EAR.

Alternatives

No action, preventive measures, physical control, and integrated management are available as alternatives to the proposed chemical control program. At the present time biological control agents have not been discovered that are compatible with the Wyoming climate and that will effectively control the designated noxious weeds proposed for control in this program.

Table 2. Little Snake River Weed Control Program - Unclassified Weeds[2]

Survey No.	Weed Species	Code	Township & Range	Section	Sub-Section	Acres of Infestation	Herbicide Applied	Method of Appl.	Time of Appl.	Phenotypic Stage of Growth
					BAGGS QUADRANGLE (Riparian Zone)					
002	Cocklebur	20	T13NR91W	19,20	SE¼NE¼,SW¼NW¼	.006	2,4-D	II	May-June	Early Bud Stage
					BAGGS QUADRANGLE (Non-Riparian Zone)					
006	Cocklebur	20	T12NR92W	1, 2	NE¼NW¼,SW¼NW¼, S½SE¼	5.500	2,4-D	I	May-June	Early Bud Stage
006	Cocklebur	20	T12NR92W	11	NW¼NW¼	.006	2,4-D	I	May-June	Early Bud Stage
					MCPHERSON SPRINGS QUADRANGLE (Riparian Zone)					
011	Halogeton	22	T13NR93W	28	SW¼SW¼	.150	2,4-D ester	II	May-June	Early Bud Stage
					MCPHERSON SPRINGS QUADRANGLE (Non-Riparian Zone)					
012	Halogeton	22	T13NR93W	20	SE¼SE¼SW¼	1.000	2,4-D ester	I	May-June	Early Bud Stage
					FLAT TOP MOUNTAIN QUADRANGLE (Riparian Zone)					
016	Cocklebur	20	T13NR92W	4, 5,32	Along intermittent streams of Secs. 4 & 5 and lower half of Sec. 32	1.000	2,4-D	II	May-June	Early Bud Stage
					TOTAL ACRES	7.662				

[1]I - ground units (liquid formulation) a. hand spray gun; b. spray boom.

II - hand sprayers (liquid formulation)

III - hand spreaders (granular applicator) a. PCB spreaders; b. shakers

[2]These weeds are not presently classified as designated noxious or declared weeds. They will be considered for future classification as designated noxious or declared weeds.

Table 2 (Cont.). Little Snake River Weed Control Program - Unclassified Weeds[2]

Survey No.	Weed Species	Code	Township & Range	Section	Sub-Section	Acres of Infestation	Herbicide Applied	Method of Appl.	Time of Appl.	Phenotypic Stage of Growth
					POISON BASIN QUADRANGLE (Riparian Zone)					
013	Cocklebur	20	T13NR93W	21	S½SW¼	.006	2,4-D	II	May-June	Early Bud Stage
013	Cocklebur	20	T13NR93W	21	NW¼SE¼	.500	2,4-D	II	May-June	Early Bud Stage
013	Halogeton	22	T13NR93W	21	SE¼SW¼	.006	2,4-D ester	II	May-June	Early Bud Stage
013	Halogeton	22	T13NR93W	21	NW¼SE¼	.012	2,4-D ester	II	May-June	Early Bud Stage
014	Halogeton	22	T13NR93W	22	SW¼NE¼	.006	2,4-D ester	II	May-June	Early Bud Stage
014	Cocklebur	20	T13NR93W	22	SW¼NE¼	.012	2,4-D	II	May-June	Early Bud Stage
015	Cocklebur	20	T13NR92W	19	NE¼NE¼NE¼	.006	2,4-D	II	May-June	Early Bud Stage
016	Cocklebur	20	T13NR92W	4,5,6, 7 8,9,17	Intermittent tributaries of Red Creek	5.000	2,4-D	II	May-June	Early Bud Stage
					POISON BASIN QUADRANGLE (Non-Riparian Zone)					
009	Cocklebur	20	T12NR93W	1	NW¼SW¼	.006	2,4-D	I	May-June	Early Bud Stage
010	Halogeton	22	T13NR93W	33	SE¼SW¼	.720	2,4-D ester	I	May-June	Early Bud Stage
010	Halogeton	22	T12NR93W	4	SW¼NE¼	.360	2,4-D ester	I	May-June	Early Bud Stage
010	Halogeton	22	T12NR93W	4	NW¼NW¼NE¼	.150	2,4-D ester	I	May-June	Early Bud Stage
011	Halogeton	22	T13NR93W	33	SW¼NE¼NW¼	.006	2,4-D ester	I	May-June	Early Bud Stage
015	Halogeton	22	T13NR93W	24	N½	5.500	2,4-D ester	I	May-June	Early Bud Stage
			T13NR92W	19	N½					
					TOTAL ACRES	12.290				

[1]I - ground units (liquid formulation) a. hand spray gun b. spray boom

II - hand sprayers (liquid formulation)

III - hand spreaders (granular applicator) a. PCB spreaders; b. shakers

[2]These weeds are not presently classified as designated noxious or declared weeds. They will be considered for future classification as designated noxious or declared weeds.

The no action and preventive measures alternatives would not accomplish the objective of the proposed action, which is to control and contain the present weed infestations. Physical control methods such as hand grubbing could be used to control the weeds. However, Canada thistle, skeletonleaf bursage and hoary cress are perennial weeds and repeated seasonal and annual grubbing operations would be required to achieve effective control. Integrated weed management involves utilizing all available control methods, that includes chemical, physical, preventive and biological, and "integrating" these methods into a workable "management" program. An integrated weed management program would be the most effective means of controlling designated noxious weeds as well as minimizing adverse environmental and economic impacts of the control programs. More extensive information describing each of these alternatives is presented in Chapter II of the North Platte EAR.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT

The program area is located in the southwestern portion of Carbon County. The treatment sites, indicated in Fig. 1, are located within the area described as Township 12 North, Range 92 West and Township 13 North and Range 91 West. Specific legal descriptions of each treatment site are listed in Table 1.

The climate in the program area is characterized by fairly moderate seasonal temperatures and low precipitation amounts. Temperatures average around 45°F annually with extremes dipping below 0°F during some winter months and exceeding 89°F in mid-summer. Average annual precipitation is low, averaging between 7 and 14 inches. Most precipitation occurs in the spring and early summer during March, April, and May.

The topography in the program area is characterized by rolling hills and low mesas that are dissected by numerous dry gulches and ephemeral tributaries. Elevations in the general area range between 6070 and 6700 feet. Actual elevations of the proposed treatment sites range between 6200 and 6300 feet (Fig. 1).

Soils in the general region are described as torriorthents-camborthids-haplargids association which can be generally described as shallow to deep, cool, and coarse to fine loamy soils. Site specific information on the soil characteristics is not presently available.

The surface water nearest to the treatment sites is the Little Snake River. The proposed treatment sites are located along roadways and ephemeral drainages. Additional information to characterize the surface and ground water characteristics is lacking.

The vegetation in the program area is predominately a sagebrush-grass association. The major shrub species are big sagebrush (Artemisia tridentata) and rubber rabbitbrush (Chrysothamnus nauseosus). Dominant grass species include Sandberg bluegrass (Poa secunda), bluebunch wheatgrass (Agropyron spicatum), western wheatgrass (Agropyron smithii) and needle-and-thread grass (Stipa comata). Tree cover is sparse on the upland areas; but juniper (Juniperus spp.), limber pine (Pinus flexilis), and pinyon pine (Pinus edulis) occur infrequently on the surrounding ridge tops. In riparian zones in and near the Little Snake River flood plain, plains cottonwood (Populus sargentii) and boxelder (Acer negundo) are common species.

The existence of rare or endangered plant species in the program area has not been documented; however, this does not preclude the possibility of the presence of such a species. One species, Cryptantha stricta, that is proposed for threatened status has been located in

north central Colorado approximately 40 miles south of the proposed program area. Cryptantha stricta inhabits the upper sonoran and transition life zones. In Colorado C. stricta is found at elevations between 6,500 and 9,000 feet(3).

The Wyoming Game and Fish Department and the BLM have provided current information regarding the status of mammalian and avian wildlife populations that inhabit the program area. The reptilian and amphibian populations that inhabit the area have not been inventoried recently; therefore, it is difficult to accurately describe the status of these populations.

The wildlife considered the most sensitive to the habitat changes that may occur following weed control operations on rangeland are: (a) big game, (b) prairie dogs, (c) sage grouse, and (d) endangered or threatened species. Mule deer and pronghorn utilize the region as yearlong summer and winter range; other big game species do not inhabit the area (4,5). The weed control sites are located in an area considered to be a critical winter range for mule deer and pronghorn antelope (4). There are no prairie dog towns in the immediate area in which weed control is proposed. There are, however, known dog towns a few miles to the southwest of the proposed treatment sites (4).

According to Game and Fish wildlife biologists, sage grouse populations do inhabit the area. There are no sage grouse strutting grounds known to occur in the proposed program area (4). Little is known of other avian species populations that may inhabit the area.

As shown in Fig. 1, the treatment sites in the program area are adjacent to an ephemeral stream and a maintained gravel roadway where a fishery would not be present. The nearest waterway that supports a

fishery is the Little Snake River which is approximately five miles to the south of the proposed treatment sites.

Clark and Dorn (6) and the Wyoming Game and Fish Department report that no black-footed ferrets have been sighted in the Little Snake River area. Bald eagles winter in the area and one active nest is present on the Little Snake River, immediately south of the proposed treatment sites. The presence of any other endangered or threatened species in the area has not been documented.

IV. ANTICIPATED IMPACTS OF THE PROPOSED ACTION AND THE ALTERNATIVES

ANTICIPATED IMPACTS OF THE PROPOSED ACTION

In the following impacts analysis a majority of the information utilized to make the impacts assessment per each environmental component is presented in the North Platte River Area Designated Noxious Weed Treatment Program Environmental Assessment Record (2). Information pertaining to the herbicide chemical characteristics, environmental fate and toxicology, and the expected environmental consequences germane to each environmental component is discussed in great detail. A majority of this information and the related environmental impacts assessment is considered relevant and applicable to the proposed Little Snake River area designated noxious weed treatment program and will not be reiterated in this supplemental assessment.

The most significant environmental effects that could be expected from the proposed program would result from target and non-target broad-leaved vegetation loss on the .024 acres proposed for control. No other significant impacts are anticipated.

ANTICIPATED IMPACTS OF THE ALTERNATIVES

A complete documentation of the anticipated impacts of the alternatives to the proposed action is contained in the North Platte EAR. The integrated management approach is considered to be the only other feasible alternative, relative to the control and containment objective of the proposed program.

MITIGATIVE MEASURES

The following mitigative measures were taken from the North Platte EAR and are deemed to be pertinent to the proposed program. The following mitigative measures, where applicable, should be adhered to:

1. Tordon should not be applied to the same treated area more often than once a year.

2. Treatments in the riparian zones should be made only on sites above the year's high-water line, and should be made to avoid water contamination.

3. Weeds which overhang any live water zone should not be treated with Tordon, but should be controlled by mechanical means.

4. Tordon should not be applied to irrigation and drainage ditches and inner stream banks.

5. Tordon should be applied to the riparian zones according to the Aquatic Restriction Charts, Figs. 5 and 6. In the event that any of the weed infestations occur inside the limits imposed by Figs. 5 and 6, Banvel herbicide must be used for treatment. Refer to the North Platte EAR for information pertaining to Banvel herbicide characteristics and the application methodology.

6. In areas where soil conditions are unstable and/or dense stands of designated weeds are removed, reseeding by BLM with desirable grasses would reduce soil erosion.

7. On steep (60^{o}), eroded stream banks, Tordon should not be applied to noxious weed infestations that are within 10' of stream bank interface vegetation. Removal of this non-target vegetation would contribute to severe erosion. In such areas physical control methods should be implemented.

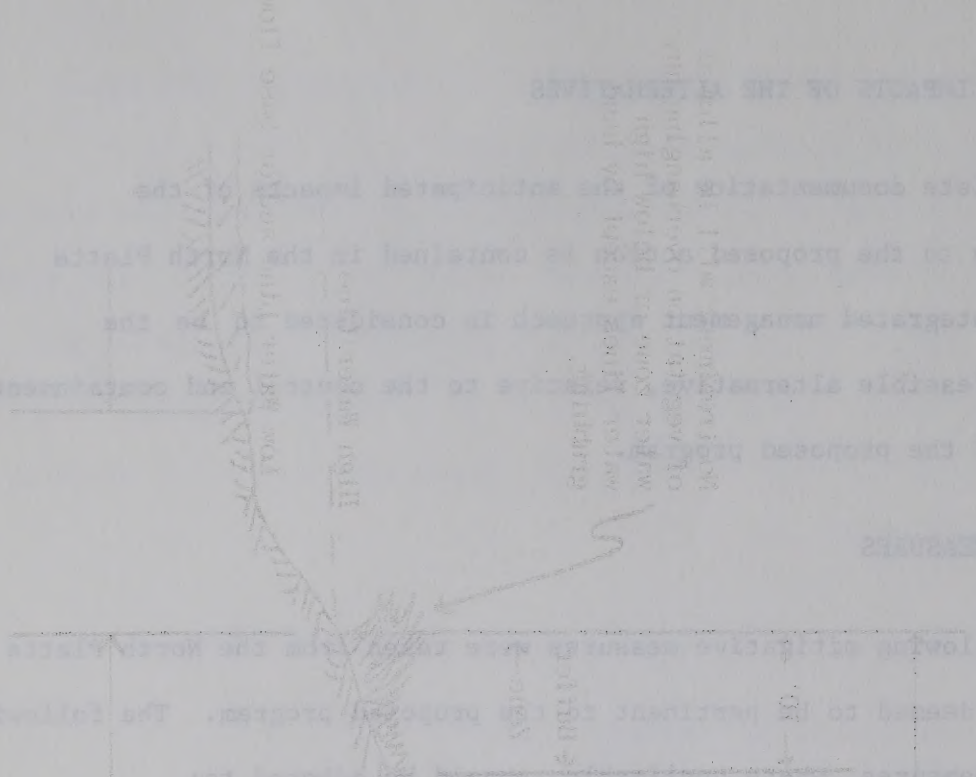
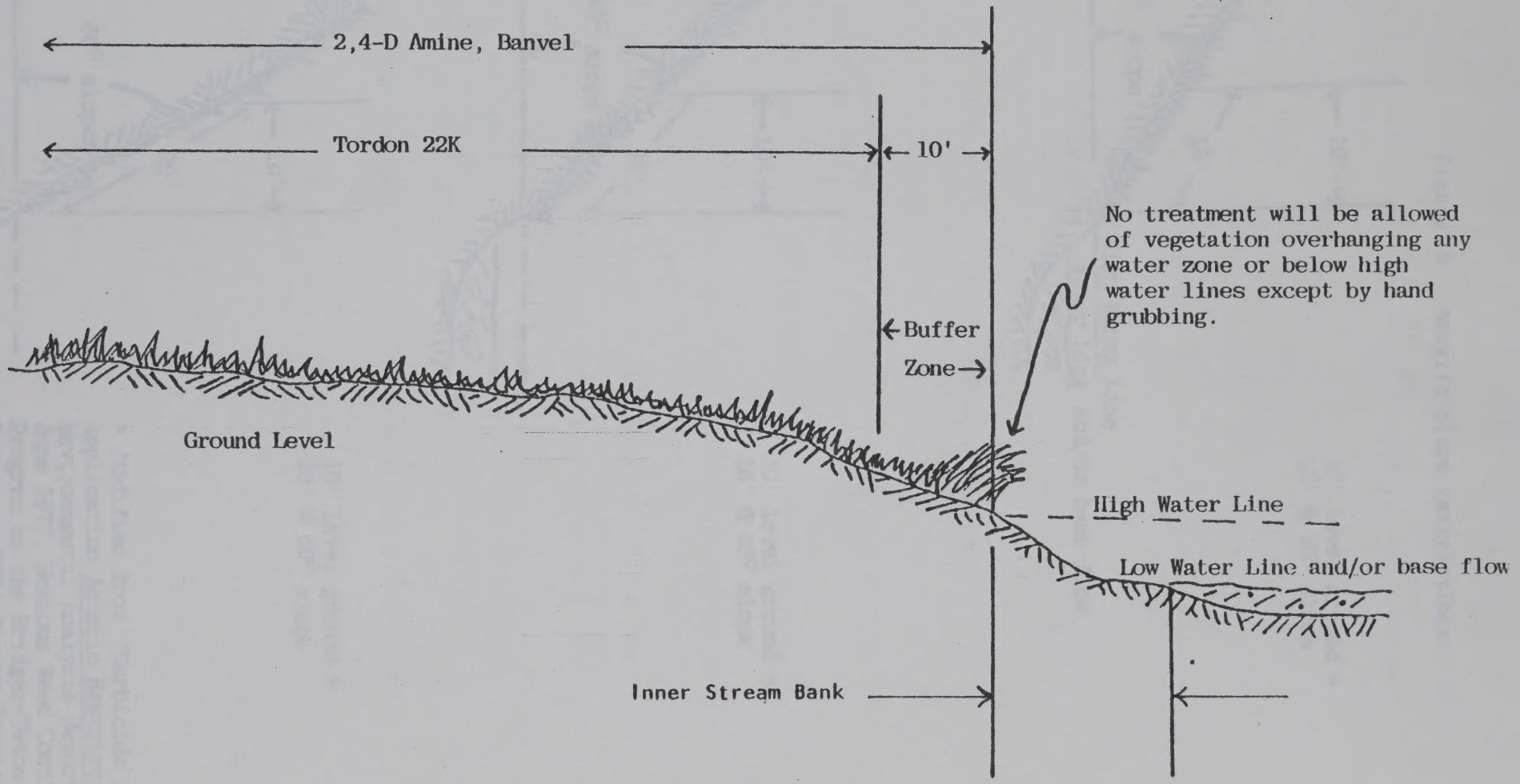


Figure 5. Herbicide ground application aquatic restriction chart.


2,4-D Amine, Banvel
Tordon 22K
10'
No treatment will be allowed of vegetation overhanging any water zone or below high water lines except by hand grubbing.
Buffer Zone
Ground Level
High Water Line
Low Water Line and/or base flow
Inner Stream Bank

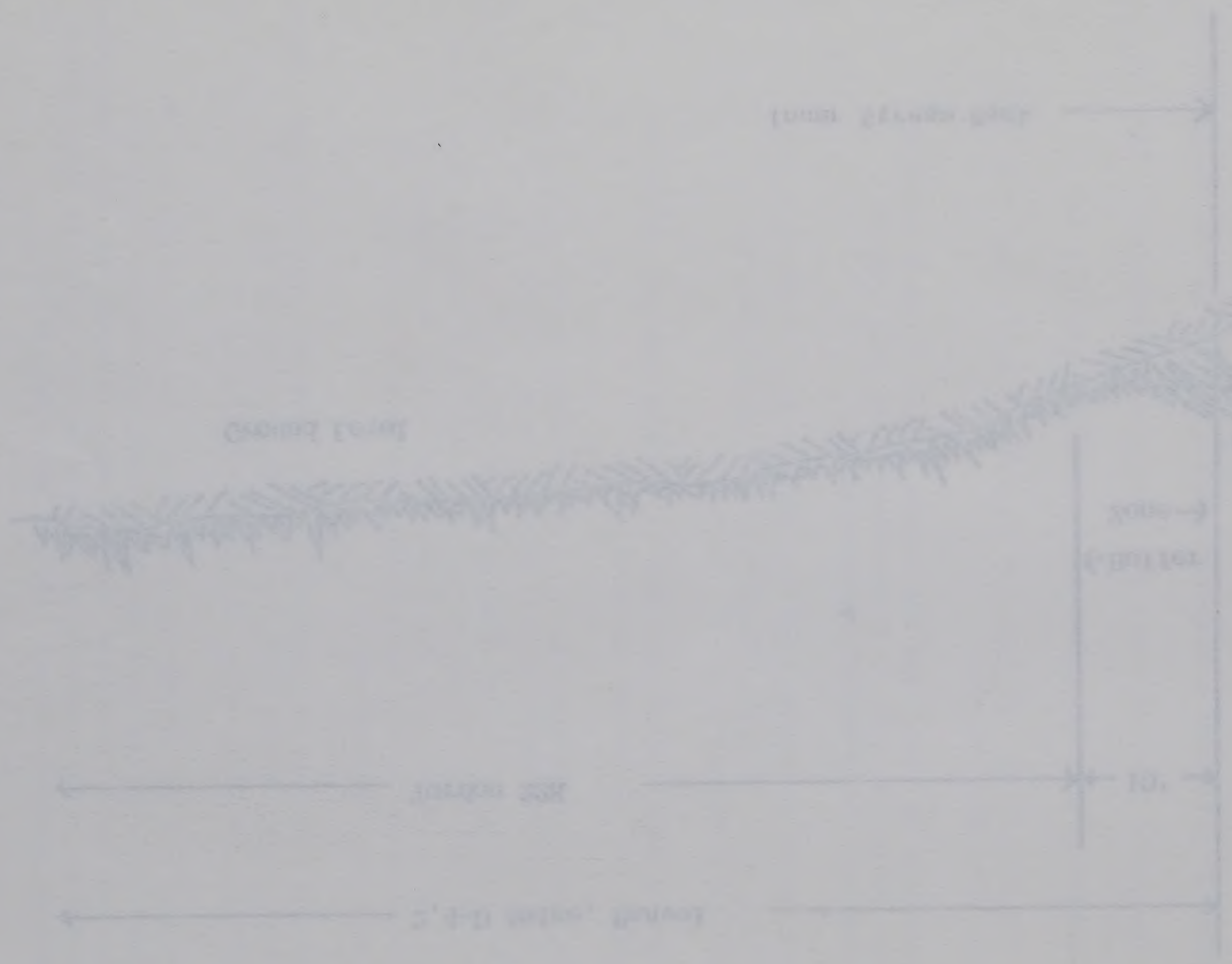
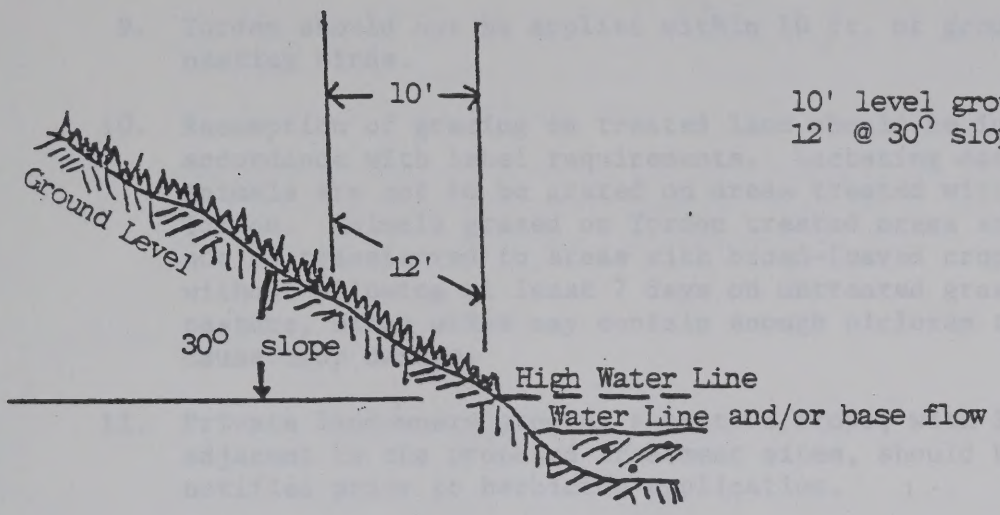
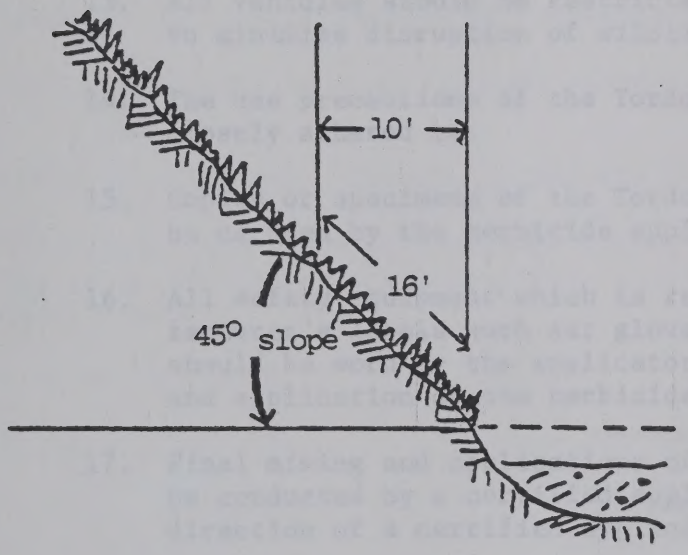


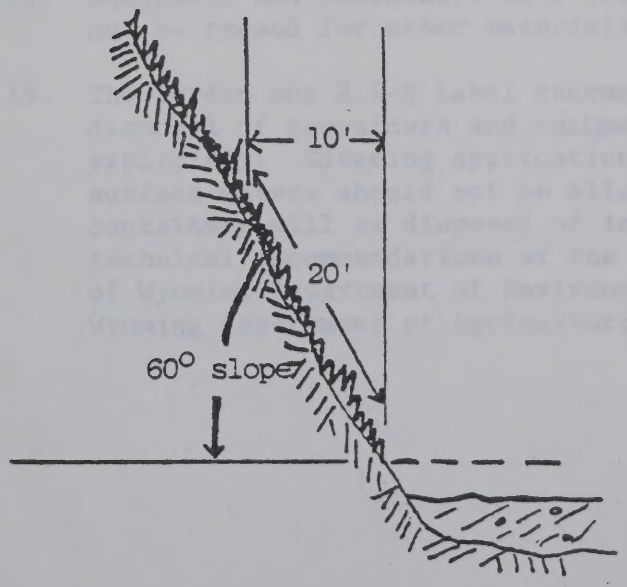
Figure 6. Aquatic slope restrictions.



10' level ground =
12' @ 30° slope



10' level ground =
16' @ 45° slope



10' level ground =
20' @ 60° slope

* Modified from "Herbicide Ground Application Aquatic Restriction Chart" Environmental Analysis Report, June 1977, Noxious Weed Control Program on the Bridger-Teton National Forest — USDA-Forest Service, Region 4.

10'
12'
30° slope

10'
12'
45° slope

10'
30'
60° slope

8. Treated soil should not be removed from the treatment sites.

9. Tordon should not be applied within 10 ft. of ground-nesting birds.

10. Resumption of grazing on treated land should be in accordance with label requirements. Lactating dairy animals are not to be grazed on areas treated with Tordon. Animals grazed on Tordon treated areas should not be transferred to areas with broad-leaved crops without allowing at least 7 days on untreated grass pasture, since urine may contain enough picloram to cause crop damage.

11. Private landowners growing sensitive crops, with land adjacent to the proposed treatment sites, should be notified prior to herbicide application.

12. Analyze water within the treatment sites which collects in ponds that are to be used for irrigation of crops, gardens or stock watering.

13. All vehicles should be restricted to designated roads to minimize disruption of wildlife habitat.

14. The use precautions of the Tordon and 2,4-D labels should be closely adhered to.

15. Copies or specimens of the Tordon and 2,4-D labels should be carried by the herbicide applicators for reference.

16. All safety equipment which is recommended by the manufacturer's labels such as; gloves, boots and goggles should be worn by the applicator during the handling and application of the herbicides.

17. Final mixing and applications of the herbicides should be conducted by a certified applicator or under the direction of a certified applicator.

18. Equipment and containers used for applying Tordon should not be reused for other materials.

19. The Tordon and 2,4-D label recommendations for cleaning and disposal of containers and equipment should be followed explicitly. Cleaning application equipment near streams or surface waters should not be allowed. In addition, herbicide containers will be disposed of in accordance with the technical recommendations of the Solid Waste Management Division of Wyoming Department of Environmental Quality and the Wyoming Department of Agriculture.

20. The County Weed and Pest Control District supervisors should notify the Rawlins district BLM office of the location and date of herbicide applications prior to initiation so that a BLM Compliance Specialist can be on-site during the operations on public lands.

21. BLM should notify the Water Quality Division of the Wyoming Department of Environmental Quality of location and date of all herbicide applications on public lands.

RESIDUAL IMPACTS

The residual impacts section in Chapter IV of the North Platte EAR (2) documents the impacts anticipated to result, following implementation of the recommended mitigative measures. The only impacts anticipated to occur after implementation of the mitigative measures is loss of target and non-target broad-leaved vegetation that is present on the treatment sites.

V. LISTS OF PREPARERS, PERSONS, GROUPS AND AGENCIES CONSULTED

This report was prepared under the direction and supervision of George F. Hittle, Weed and Pest Coordinator, Wyoming Department of Agriculture.

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